

IN THE CLAIMS:

Please amend claims 1-13 and 17-19 and add new claim 20 as follows:

1. (Currently amended) A method for ~~guiding an~~ intersection, comprising ~~the steps of~~:

checking an intersection network to create a predetermined intersection based on a vehicle position information, the predetermined intersection comprising an approach road that the vehicle approaches and a plurality of departing roads;

creating a turn guide arrow to be displayed on the intersection; and

simultaneously displaying the intersection and the turn guide arrow ~~created thereon such~~ that an approach road having a predetermined angle from due north is placed on a vertical line.

2. (Currently amended) The method of claim 1, wherein the step of creating the predetermined intersection comprises ~~the steps of~~:

calculating an approaching angle of ~~an~~ the approach road ~~that the vehicle approaches,~~ departing angles of a ~~difference~~ plurality of departing roads connected to the approach road, and angles between the approach road and each of the ~~difference~~ plurality of departing roads;

vertically placing the approach road; and

representing the ~~difference~~ plurality of departing roads according to the calculated angles between the approach road and each of the plurality of departing roads ~~from the approach road placed vertically.~~

3. (Currently amended) The method of claim 2, further comprising ~~the steps of~~ storing the approaching angle, the departing angle, and the angles between the approach road and each of the plurality of departing roads.

4. (Currently amended) The method of claim 2, wherein the ~~difference~~ plurality of departing roads are represented according to a trigonometric function value calculated using a trigonometric function table.

5. (Currently amended) The method of claim 1, wherein ~~the step of~~ creating the turn guide arrow comprises ~~the steps of~~:

arranging a basic arrow, the basic arrow providing with a lower body, a center circle, an upper body and a head, a width of the center circle identical to a width of the upper body and the lower body;

if a vehicle is guided by selecting one of the plurality of departing roads, calculating a rotation angle by using the angle between the approach road and the selected departing road; and rotating the upper body and the head according to the calculated rotation angle.

6. (Currently amended) The method of claim-~~35~~, wherein the rotation angle is an angle obtained by subtracting 180° from the angle between the approach road and the selected departing road.

7. (Currently amended) The method of claim-~~35~~, further comprising ~~the step of~~ converting the rotation angle into a positive number.

8. (Currently amended) The method of claim-~~67~~, wherein 360° is added to the rotation angle if the rotation angle is a negative number.

9. (Currently amended) The method of claim-~~45~~, further comprising ~~the step of~~ matching a center of the rotated arrow with a center of the intersection.

10. (Currently amended) An apparatus for ~~guiding an intersection~~ guidance, comprising:

means for checking an intersection network to create a predetermined intersection based on a vehicle position information, the predetermined intersection comprising an approach road that the vehicle approaches and a plurality of departing roads;

means for ~~create~~ creating a turn guide arrow to be displayed on the intersection; and

means for simultaneously displaying the intersection and the turn guide arrow such that an approach road having a predetermined angle from due north is placed on a vertical line created thereon.

11. (Currently amended) The apparatus of claim 10, wherein the means for generating the intersection comprises:

means for calculating an approaching angle of ~~an~~ the approach road ~~which the vehicle approaches~~, a departing angle of a ~~difference-plurality~~ of departing roads connected to the approach road, and angles between the approach road and ~~the difference~~ each of the plurality of departing roads from a predetermined set direction;

means for vertically placing the approach road; and

means for representing the ~~difference-plurality~~ of departing roads according to the calculated angles between the approach road and each of the plurality of departing roads from the vertically placed approach road ~~placed vertically~~.

12. (Currently amended) This apparatus of claim ~~10~~ 11, further comprising a means for storing the approaching angle, the departing angle, and the angles between the approach road and each of the plurality of departing roads.

13. (Currently amended) The apparatus of claim 10, wherein the means for creating the turn guide arrow comprises:

means for arranging a basic arrow, the basic arrow being providing with a lower body, a center circle, an upper body and a head;

means for calculating a rotation angle by using the angle between the approach road and a selected departing road if the vehicle is guided by selecting one of the plurality of departing roads; and

means for rotating the upper body and the head according to the calculated rotation angle.

14. (Original) The apparatus of claim 13, wherein the rotation angle is an angle obtained by subtracting 180° from the angle between the approach road and the selected departing road.

15. (Original) The apparatus of claim 13, further comprising a means for converting the rotation angle into a positive number.

16. (Original) The apparatus of claim 15, wherein 360° is added to the rotation angle if the rotation angle is a negative number.

17. (Currently amended) The apparatus of claim 13, further comprising ~~the means~~ for matching a center of the rotated arrow with a center of the intersection.

18. (Currently amended) A navigation system comprising:
means for storing data necessary to create an intersection;
means for storing ~~a~~-basic arrow data;
a memory storing a coordinate of an arrow for indicating a direction and a trigonometric function table;

a central processing unit for ~~guiding an intersection~~ guidance with a turn guide arrow by using ~~the data~~ necessary to create the intersection, the basic arrow data and the trigonometric function table; and

means for displaying the intersection with the turn guide arrow, wherein the central processing unit includes:

means for checking an intersection network to create a predetermined intersection based on ~~a~~-vehicle position information, the vehicle position information ~~being~~ extracted from the data necessary to create the intersection, the predetermined intersection comprising an approach road that the vehicle approaches and a plurality of departing roads; and

means for creating the turn guide arrow to be displayed on the created intersection such that an approach road having a predetermined angle from due— north is placed on a vertical line.

19. (Currently amended) The navigation system of claim 18, wherein the means for storing the basic arrow data includes a lower body, a center circle, an upper body and a head, ~~a whose line widths are adjustable, and colors distinguishing the lower body, of the center circle, identical to a width of the upper body and the head from each other~~ lower body.

20. (New) The navigation system of claim 18, wherein the widths of the lower body, center circle, upper body and head are adjustable and colors distinguish the lower body, center circle, upper body and head from each other.